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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,641	01/26/2004	Hiroyuki Osaki	09792909-5773	9081

26263 7590 07/13/2006

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EXAMINER

DAVIS, DAVID DONALD

ART UNIT PAPER NUMBER

2627

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/764,641

Applicant(s)

OSAKI, HIROYUKI

Examiner

David D. Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Figures 5 and 12-16B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-5 and 8 rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu et al (US 4,257,076). As per claims 1 and 8, Shimizu et al shows in figure 2 a magnetic tape 4 apparatus comprising a sliding portion against which a magnetic tape 4 is in sliding contact. Figure 5 shows the sliding portion has at least one flat portion 28 formed by cutting a circumferential surface of the sliding portion so that the flat portion 28 is substantially parallel to a sliding contact surface of the magnetic tape 4. Figure 5 also shows the sliding portion having a plurality of peak portions 29 formed by cutting so that the peak portions 29 protrude from the flat portion 28 at a predetermined pitch.

As per claim 3, Shimizu et al shows in figure 2 the sliding portion is a drum including a magnetic head 16 for recording and/or reproducing information on the magnetic tape 4. As per claim 4, Shimizu et al shows in figure 2 the sliding portion is a guide for guiding the magnetic tape 4. As per claim 5, figures 2 and 6 of Shimizu et al show the drum comprises a rotary drum having the magnetic head 16 and being capable of rotary, and a stationary drum 21 supporting the rotary drum with a shaft and being fixed. The flat portion 28 and the peak portions 29 are formed so as to extend in the circumferential direction of the rotary drum and to substantially parallel to a lead portion, formed in the stationary drum 21, for guiding the magnetic tape 4.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al (US 4,257,076). As per claim 2, in the paragraph bridging columns 3 and 4 Shimizu et al suggests under conditions such that a surface roughness defined as an Rmax, which is a maximum height of the peak portion, falls in the range from 0.5 to 2.0 μm . Also, the width of the flat portion 28 has an upper limit of 230 μm and a lower limit within the range defined by a line formed by connecting points (0.5, 50), (1.0, 20), (1.5, 15), and (2.0, 10). Additionally, the first coordinate of the point being the surface roughness (μm), and the second coordinate being the width (μm) of the flat portion 28. As per claim 6, Shimizu et al considered to show in figures 2 and 5 the circumferential surface of the stationary drum 21 having a surface roughness of 1 to 2 μm , the surface roughness being defined in terms of a maximum height of the peak portions 29. As per claim 7, in the paragraph bridging columns 3 and 4 Shimizu et al suggests that the

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circumferential surface of the guide has a surface roughness of 0.1 to 10 μm . The surface roughness being defined in terms of a maximum height of the peak portions 29.

Assuming arguendo that the Shimizu et al is silent as to the dimensions of the flat portion and the peak portions, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to specify the dimensions of the flat portion and the peak portions of Shimizu et al. The rationale is as follows: one of ordinary skill in the art at the time the invention was made would have been motivated to specify dimensions, which is well within the purview of a skilled artisan and absent an unobvious result, "to reduce the frictional forces resulting from such a thin layer of water between a magnetic tape and the peripheral surface of the drum in a recording and/or reproducing apparatus. See column 1, lines 43-47 of Shimizu et al.

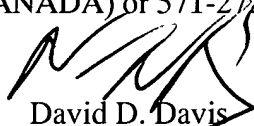
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Davis whose telephone number is 571-272-7572. The examiner can normally be reached on Monday thru Friday between 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on 571-272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



David D. Davis
Primary Examiner
Art Unit 2627

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